STATE OF MAINE
PUBLIC UTILITIES COMMISSION

April 29, 2003

Docket No. 2002-578

PUBLIC UTILITIES COMMISSION
Investigation of Compensation by
Global NAPs to Verizon and Other
LECs for interexchange internet traffic
and Use of NXX Codes by Global NAPs

EXAMINER'S REPORT

NOTE: This Examiner's Report contains the recommendation of the Hearing Examiner. Although written in the form of an order, it does not constitute formal Commission action. Parties may file exceptions to this Report on or before **May 13, 2003**. We anticipate that the Commission will consider this Examiner's Report at its Deliberative Session on **May 19, 2003**.

I. SUMMARY

In this Order, we require Verizon Maine (Verizon) to provide a wholesale service to Global NAPs and other competitive interexchange carriers (IXCs) that will allow those IXCs to provide a service to internet service providers (ISPs) that is similar to Verizon's retail PRI-Hub service that it provides to ISPs. IXCs that take this service will pay for transport only, and the pricing will be based on long run incremental cost (LRIC).

II. PROCEDURAL BACKGROUND

We opened this investigation on October 8, 2002, to address claims made by Global NAPs that it was entitled to NXX codes so that it could provide a service similar to that which we ruled unlawful in the *Brooks* Investigation.[1] Initially, we addressed the

[1] *Public Utilities Commission, Investigation into Use of Central Office Codes (NXXs) by New England Fiber Communications, LLC d/b/a Brooks Fiber*, Docket No.

issues raised by Global NAPs' request in the *Brooks* Investigation, but we transferred consideration of the issues and the record developed in that case to this proceeding. The *Amended Notice of Investigation* (NOI) (October 9, 2002) in this proceeding stated that we would defer certain issues raised by Global NAPs (among them, a claim that our rulings in Brooks were no longer valid because of federal preemption) and instead seek a solution that would satisfy the interests of Global NAPs and was consistent with the interests of Verizon, Maine's other ILECs, and the customers of those companies.

The NOI requested the parties[2] to comment on a specific proposal that had been "described by the Advisory Staff at a Technical Conference held on July 18, 2002, and in a written outline later distributed to the parties." We describe that proposal and the parties' responses below.

III. SUBSTANTIVE BACKGROUND

During the period of this case when the Commission began investigating this matter under the *Brooks* investigation, Global NAPs stated its intention to provide ISPs with a service that would enable end-users (ISP subscribers) to reach the ISP on a toll-free basis. Global NAPs proposed to provide such a service using multiple NXXs (thus

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98-758, Order Requiring Reclamation Of NXX Codes And Special ISP Rates By ILECs (Order No. 4) (hereinafter, the *Brooks Investigation* or *Brooks Order*).

[2] Pursuant to the NOI, the parties in this case are those that participated in the *Brooks* investigation. These are: Global NAPs, Verizon, Brooks, Sprint, the Public Advocate, the Telephone Association of Maine, Mid-Maine Communications, Communtity Service Telephone Company and GWI.

invoking the service we found to be unreasonable and unlawful in the *Brooks* investigation), but also indicated a willingness to provide the service using a single NXX. Global NAPs proposed that Verizon would provide Global NAPs with end-office switching, tandem switching and transport to the point of interconnection with Global NAPs.

The NOI characterized the service proposed by Global NAPs as "interexchange," based on prior findings in the *Brooks* investigation. Global NAPs was a party in that proceeding. No party appealed that finding. The NOI requested the parties to respond to the Staff advisors' proposal, which would allow Global NAPs to use a single code and pay for the service based on long run incremental costs (LRIC). Verizon's pricing for the service would be flat-rated and based on similar costing methodology used for Hub-PRI service pricing, which we understand is "long-run marginal cost." The Advisory Staff's original proposal is set forth in Appendix A.

Verizon has not claimed that any aspect of the service desired by Global NAPs is not feasible. Verizon did not answer most of the questions posed by the Examiner with regard to the specific proposal advanced by the advisors, namely, that Verizon would make available network functions so that competitive interexchange carriers may offer retail alternatives to Verizon's HUB-PRI service. Instead, it addressed only the compensation issue, arguing that because the SNS traffic that Global NAPs proposes to carry is interexchange, Global NAPs should pay regular access rates. It argues that the

Commission "has no other lawful rate to apply to the originating service . . . but tariffed switched access charges."

Verizon contends that internet traffic does not enjoy subsidized status under state or federal law. Verizon argues that 35-A M.R.S.A. § 7101(4) does not require or even permit lower rates for state-wide access to information services. It urges us to find that Section 7101(4) is not a plenary mandate to discount all uses of the public switched network involving information services, but rather a legislative "endorsement" of the support to schools and libraries that is to be used for assistance in purchasing telecommunications service needed to access information services. We do not agree with Verizon's restrictive reading of Section 7101(4). We recognize this provision was enacted as part of an "Act to Provide Affordable Access to Information Services in All Communities of the State through Enhanced Library and School Telecommunications," P.L. 1995, ch. 631, and that, in that Act, the Legislature did specifically endorse prior Commission orders in two proceedings that required funding for schools and libraries.[3] Subsection 4 of Section 7101 is not restricted to schools and libraries, however; its language is much broader:

> **4. Information access.** The Legislature further declares and finds that computer-based information services and information networks are important

[3] In the 1995 Act, the Legislature retroactively approved the actions by the Commission in Docket Numbers 94-123 and 94-254 (respectively, the first Verizon AFOR case and the *Pease* rate investigation) that established school and library funding. Section 4 of the Act states that those actions were authorized pursuant to sections 2 and 3 of the Act. Section 2 of the Act enacted subsection 4 of 35-A M.R.S.A. § 7101. Section 3 of the Act enacted a new section of the revised statutes, 35-A M.R.S.A. § 7104-A, that specifically addressed funding for schools and libraries.

> economic and educational resources that should be available to all Maine citizens at affordable rates. It is the policy of the State that affordable access to those information services that require a computer and rely on the use of the telecommunications network should be made available in all communities of the State without regard to geographic location.

We interpreted this provision consistent with its broad language in the *Brooks* Investigation when we ordered Verizon to provide a discounted retail service to ISPs that would provide affordable connectivity to the internet. During the *Brooks* investigation, Verizon could have raised the same argument that it raises now in this case, but did not do so. Verizon responded to the *Brooks* Order by proposing what is now known as Hub-PRI service. The Commission's decision in *Brooks* made the legal and policy determination that Section 7101(4) authorized a reduced-price interexchange service to ISPs. Collateral estoppel precludes Verizon from arguing that Section 7101(4) does not permit a "wholesale access service" for internet traffic that will allow competitive interexchange carriers to offer a service that will compete with Verizon's Hub-PRI service. We also see no policy reason, and Verizon advanced none, why services similar to its retail offering should not be made available on a wholesale basis so that competitive alternatives will be available.

The price for the Hub-PRI service is set to allow Verizon to recover its incremental cost for transporting interexchange Internet traffic to an ISP. An examination of Verizon's cost study supporting the HUB-PRI service shows that the HUB-PRI service does not recover *any* portion of loop costs and does not recover end-office switching costs to the same extent as rates for other retail interexchange services.

Global NAPs agrees with the Advisory Staff's suggestion that a wholesale equivalent of Verizon HUB-PRI service could be made available by "permitting it to purchase incremental cost-based transport from end users to a central location under intrastate arrangements."

The advisors issued a data request to Global NAPs requesting it to describe the design of its proposed service configuration for the service it wishes to offer. Global NAPs' response indicates that the services Global NAPs needs to obtain from Verizon are basic in nature. Global NAPs states that it needs Verizon to carry traffic from end user customers who dial an access number to a point of interconnection at which Verizon's facilities will connect to those of Global NAPs. To accomplish this, Verizon will need to provide Global NAPs with local/host switching, tandem switching, and transport services (including termination). The services that Global NAP is requesting are nearly identical to those provided to IXCs as access services. From an engineering perspective, there is validity to Verizon's argument that what Global NAPs seeks is hardly different from ordinary interexchange switched access charges, for which IXCs pay regular access rates.

Global NAPs is, of course, arguing for a different compensation methodology and amount. Global NAPs proposes to base compensation on Verizon's incremental costs. Global NAPs contends that even though Verizon will provide local switching for this traffic and that its traffic will travel over Verizon's loops, only the increased minutes at

the busy hour for each end office, above those which are currently included in existing switch design, are incremental and should be included in the compensation arrangement. Since most loop costs are not traffic sensitive, Global NAPs believes no loop costs should be included in a compensation plan.

IV. DISCUSSION AND DECISION

We agree with Global NAPs' argument that a compensation mechanism should include only incremental end-office switching costs and no share of loop costs. That approach best emulates Verizon's retail Hub-PRI service. In addition, Verizon already recovers existing switching and loop costs in its rates for other services, a circumstance that we relied on in the pricing for Hub-PRI service. We also agree with Global NAPs suggestion that transport costs "should be based on an efficient forward-looking technology" that uses a common transport network for low volume routes and an efficiently-configured high usage dedicated trunk network for high volume routes. We further believe that the costs of the common network should also include the incremental costs of increased host-remote trunking capacity, trunks from the host to the tandem and any additional host and/or tandem switching costs incurred by Verizon. These costs should be based on the expected average traffic volumes during the busy hour. We also believe the incremental transport and switching costs should include the same level of assignment of common overheads, such as corporate overheads and benefits, that Verizon assigned to the HUB-PRI service when it performed its cost analysis for that service.

To determine these specific costs with reasonable accuracy, we would need to predict the number of voice minutes that each additional PRI obtained by an ISP is likely to generate at each portion of the switched network. Global NAPs urges us to accept a calculation of those costs that is based on the average transport distance for a large (DS3) trunk group. Notwithstanding its argument that the costing methodology should use a common transport network for low volume routes and an efficiently-configured high usage dedicated trunk network for high volume routes, Global NAPs proposes to use an actual methodology that is much simpler: it would divide the TELRIC costs of a large capacity transport facility by the minutes the facility is capable of transporting to determine a per mile/per minute cost of transport. Global NAPs may have performed the calculation of call carrying capacity of a "fully packed" DS3 facility correctly, but that calculation does provide an accurate prediction of actual incremental network costs caused by Global NAPs traffic. In contrast to the traffic that originates with a large DS3 circuit, Global NAPs' traffic does not all originate from the same place and, in many instances, will use transport facilities that are considerably smaller than DS3s.

The per circuit cost of small capacity transport facilities is considerably greater than that for large capacity DS3 facilities capable of carrying the same amount of traffic in aggregate. Thus, the use of DS3 costs is likely to understate the actual facility circuit costs for Global NAPs' traffic. Global NAPs' traffic is likely to originate from many different points within Maine, and we do not know all of those locations. Most likely Global NAPs does not know all those locations at this time. Knowing those locations would be necessary to determine both the transport distances and the trunk group

sizes. Using average transport distances and a single, large transport facility as a surrogate for actual incremental transport cost will not provide a sufficiently accurate cost estimate. Global Naps' methodology fails to recognize that much of its traffic is likely to be collected from smaller end-offices using small trunk groups that are typically not "fully packed." The cost of numerous small trunk groups is not equal to cost of a large trunk that could handle the aggregate capacity of the numerous smaller trunks.

Global NAPs' assumption that we can calculate the per-mile trunking cost by using the average transport distance is not reasonable because the size, number, and length of trunk groups will vary substantially by route. There are substantial variances around this average and it is highly unlikely that the costs for service configuration desired by Global NAPs would be similar to the average. Because trunking costs are not linear with trunk distance, the use of an average is most likely will not be accurate. In other words, the incremental cost to Verizon for switching traffic for Global NAPs depends not only on the aggregate level of traffic, or the aggregate distance it is transported, but on the location from which various portions of the trafffic must be transported and the amount of traffic coming from each location. The use of average traffic amounts and distances would be reasonable only if traffic patterns were uniform, the per minute unit trunking costs were the same regardless of trunk size, and all transport costs were linear with distance. Similarly, the need for host and/or tandem switching depends on the location in the network where each specific minute of use originates and cannot be calculated using simple averages.

Because it is nearly impossible to predict, in advance, either the level of expected traffic volumes and the location of where traffic originates that will be generated by ISP end users for each flat rated PRI, or the locations from which that traffic originates, we decide that that the compensation plan will not be flat rated but instead will be based on an "access like" traffic sensitive rate structure with the following exceptions:

1. No common line costs should be levied because the ISPs' use does not generally cause the need for any incremental loop investment.

2. Only incremental local switching and host/remote transport minutes caused by the ISP's traffic should be used in the calculation of the rate because the cost of the "baseline" or current level of switching and transport necessary for providing local service is already included in end user local rates.

3. End-office switching, transport, and tandem costs should be based on Verizon's incremental costs to provide those services and shall include the use of the same allocation of common overheads that Verizon used to develop its rate for Hub-PRI service. The cost for these services should be close enough to Verizon's TELRIC costs for those network functions that TELRIC costs (which were generally established in the TELRIC case) can be used as a surrogate.[4] Compensation to Verizon should not be flat-rated. We recognize that for retail Hub-PRI service, compensation to Verizon is flat-rated (on a per-PRI basis). That model is inappropriate for the service requested by

[4] As with Global NAPs' proposal, TELRIC costs are averaged to the extent that they are not based on the specific network used by the end user. They are somewhat more distance sensitive than the costing methodology proposed by Global NAPs.

Global NAPs because most of the transport costs are not incurred on the basis of a large increment of capacity (e.g., each PRI trunk). Hub-PRI service, by design, directs ISP traffic off the existing public switched network and charges the ISP for each PRI transport based on the amount of traffic coming from various regions (sector hubs) around the state. Because the interconnection arrangement requested by Global NAPs would use the existing switched network and, in some cases, is less efficient than the HUB-PRI service, its costs are likely to exceed those that would be attributable to the HUB-PRI service. The compensation by Global NAPs to Verizon should reflect those differences.

We note that, in the *Brooks* orders, we attached great importance to having a flat-rated retail service for internet traffic. Nevertheless, the costs to a Hub-PRI customer are in fact traffic-sensitive, albeit not on a per-minute basis and in relatively large increments. A customer will need to add PRI trunks as its traffic from each sector hub increases.[5]

V. CONCLUSION

For the reasons stated above, we order Verizon to provide wholesale services, described above, that will permit Global NAPs and other IXCs to provide a service that

[5] Sprint supported the advisory staff's proposal, but suggested that the system use a single state-wide NXX rather than an 800 or 500 number. We have no preference for one single-number (or single NXX) system over another as long as any service does not use multiple NXXs. Spring generally appears to support the compensation scheme originally proposed by the advisory staff.

is competitive with Verizon's Hub-PRI service. The service shall be priced using the pricing methodology described herein.

Respectfully submitted,

Peter Ballou
Hearing Examiner

With: Richard Kania and Joel Shifman,
Advisory Staff